

## Claims

[c1] What is claimed is:

1. An apparatus for controlling speed of a pickup head comprising:

a tracking compensator for driving a driving device of said pickup head; and

an adaptive compensator for driving said driving device according to an error signal received by said pickup head so as to drive an actuator of said pickup head away from the non-linear region of a predetermined range on a sled.

[c2] 2. The apparatus as recited in claim 1 further comprising an error signal generator for generating said error signal to said adaptive compensator according to a position relationship between said actuator and a target track.

[c3] 3. A method for controlling speed of data access of a pickup head comprising:  
detecting whether an actuator on a sled approaches to a non-linear region of a predetermined range on said sled;  
and  
providing a supplementary force to drive said actuator away from said non-linear region.

- [c4] 4.The method as recited in claim 3 further comprising the steps of:  
generating an error signal according to a position relationship between said actuator and a target track; and  
determining that said actuator approaches to said non-linear region of said predetermined range on said sled if a magnitude of said error signal is substantially greater than an adjustable threshold.
- [c5] 5.The method as recited in claim 3 further comprising the steps of:  
generating an error signal according to a position relationship between said actuator and a target track,  
wherein said error signal is polarized; and  
determining whether said actuator approaches to said non-linear region according to said error signal.
- [c6] 6.The method as recited in claim 5, wherein said polarized error signal indicating a degree and a direction of said actuator deviation from said target track.
- [c7] 7.A tracking method of a pickup head comprising:  
determining an adjustable supplementary force according to a reflected signal from a focusing error; and  
adding up said adjustable supplement force to adjust position of said pickup head for reducing a run-out ef-

fect of a disk.

- [c8] 8. The method as recited in claim 7, wherein magnitude and symbol of said reflected signal indicating degree and direction of said run-out disk deviation from said target track.